

WHAT IS CLAIMED IS:

1. A dynamic associative memory device, comprising:
 - a word line;
 - 5 a pair of first bit line (BL) and second bit line (/BL) which has signal potentials opposite to the first bit line;
 - a plurality of memory cells, wherein each of the memory cells includes;
 - 10 a data-storing capacitor connected to the first bit line or the second bit line through first transmission gate capable of being switched to ON-state in accordance with an activation of the word line, and having a cell plate supplied with a source voltage; and
 - 15 at least one second transmission gate provided in series between the first bit lines and the second bit line, capable of being switched to ON-state in response to a memory node potential at an opposite side of a source voltage supply-side of the data-storing capacitor;
 - 20 and
 - a memory cell initializing circuit for controlling the memory node potential upon receiving a reset signal so that at least one of the second transmission gates is switched to OFF-state.

2. The dynamic associative memory device according to Claim 1,

wherein said memory cell initializing circuit activates the word line and controls the memory node potential upon receiving the reset signal so that at least one of the second transmission gate is switched to OFF-state.

3. The dynamic associative memory device according to Claim 1,

wherein the memory-cell initializing circuit sets the memory-node potential to 0 volt upon receiving the reset signal.

4. A dynamic associative memory device, comprising:

a word line;

a pair of first bit line (BL) and second bit line (/BL) which has signal potentials opposite to the first bit line;

a sense-amplifier to amplify the difference of potentials between the first bit lines and the second bit line;

a plurality of memory cells, wherein each of the memory cells includes;

first and second data-storing capacitor

connected to the first bit line and the second bit line through each of two first transmission gates each capable of being switched to ON-state in accordance with an activation of a word line, and having a cell plate supplied
5 with a source voltage; and

two second transmission gates provided in series between the first bit lines and the second bit line, of which each gate is connected to a memory node that is an opposite side node of a source voltage supply-side
10 node of the first and second data-storing capacitor each capable of being switched to ON-state in response to the memory node potential; and

a memory cell initializing circuit for controlling the memory node potential by activating the
15 word line and the sense-amplifier upon receiving a reset signal so that at least one of the second transmission gates is switched to OFF-state.

5. The dynamic associative memory device according to
20 Claim 4,

wherein the memory-cell initializing circuit sets one of the memory-node potentials to 0 volt upon receiving the reset signal.